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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,640	07/15/2003	Hideki Sugiura	240356US0	5239

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EXAMINER
DOTE, JANIS L

ART UNIT	PAPER NUMBER
1756	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,640	SUGIURA ET AL.	
	Examiner	Art Unit	
	Janis L. Dote	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *19 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/14/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The examiner acknowledges the amendments to claims 6, 8, and 15 filed on Nov. 30, 2006. Claims 1-20 are pending.

2. The examiner acknowledges applicants' elected species, oxide particles comprising the metal element Ti, set forth in the response filed on Aug. 22, 2005. Claims 1-18 read on the elected species.

Accordingly, claims 19 and 20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and nonelected species of invention, there being no allowable generic or linking claim. Applicants timely traversed the restriction (election) requirement in Aug. 22, 2005.

3. The examiner has considered has considered the US applications listed on the "List of related cases" in the IDS filed on Nov. 14, 2006.

4. The objections to the specification set forth in the office action mailed on Sep. 7, 2006, paragraphs 7 and 8, have been withdrawn in response to the amended paragraph beginning at page 38, line 16, of the specification, and the inserted new

paragraph at page 30, line 1, of the specification, filed on Nov. 30, 2006.

The rejections of claims 6 and 8 under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Sep. 7, 2006, paragraph 10, have been withdrawn in response to the amendments to claims 6 and 8 filed on Nov. 30, 2006.

The rejection of claim 8 under 35 U.S.C. 102(a)/103(a) over European Patent 1,319,992 A1 (EP'992) set forth in the office action mailed on Sep. 7, 2006, paragraph 12, has been withdrawn in response to the amendment to claim 8 filed on Nov. 30, 2006. Applicants have perfected their claim to foreign priority under 35 U.S.C. 119 for the subject matter recited in instant claim 8. The certified English-language translation of the foreign priority document, Japanese Patent Application No. 2002-205196, filed on Feb. 27, 2006, provides antecedent basis as set forth under 35 U.S.C. 112, first paragraph, for the subject matter recited in instant claim 8. Accordingly, EP'992 is no longer prior art with respect to the subject matter recited in instant claim 8.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37

CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In claim 8, the recitation "the metal element, Si element, and O element of the oxide fine particles are evenly dispersed between a surface part and an inner part of the oxide fine particles," lacks antecedent basis in the specification. See the specification at page 41, lines 10–12, which discloses that the "oxide fine particles preferably have a composition uniformly dispersed over their surface and inside thereof." (The examiner notes that the subject matter recited in originally filed claim 8 provides antecedent basis for the recitation now recited in instant claim 8. Originally filed claim 8 recites that the elements of the oxide fine particles "are uniformly dispersed between a surface of the oxide fine particles and an inner portion of the oxide fine particles." That language should be inserted into the specification at an appropriate location.)

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Instant claim 15 is indefinite in the phrase "comprising one or more kinds of external additives having a small average particle diameter of primary particles" (emphasis added). It is not clear whether the "kinds" refer to species of external additives or to properties.

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Instant claim 15 recites that toner further comprises "one or more kinds of external additives having a small average particle diameter of primary particles."

The originally filed specification does not provide an adequate written description of said external additives recited in instant claim 15. The originally filed specification at page 31, lines 13-16, describes and originally filed claim 15 recites that the toner may further comprise other external additives having "an average particle diameter of primary particles smaller than that of the oxide fine particles." The external additives recited in instant claim 15 are broader than the originally disclosed "other" external additives, because they include external additives having a small average particle diameter of primary particles that is larger than the average particle diameter of primary particles of the oxide fine particles.

In the response filed on Nov. 30, 2006, applicants assert that subject matter recited in instant claim 15 is supported by the English translation of the priority document Japanese Patent Application 2002-205196, filed on Feb. 27, 2006.

However, the priority document is not part of the originally filed specification. The originally filed specification was not filed in the non-English language (37 CFR

1.52(d)), nor did it explicitly incorporate said priority document by reference. Applicants may not rely on the disclosure of the unincorporated foreign priority document to provide the missing antecedent basis for the "external additives" recited in instant claim 15. See Ex parte Bondiou, 132 USPQ 356 (Bd. App. 1961) and MPEP 2163.07 (8th edition, Rev. 5, Aug. 2006).

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claim 15 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over European Patent 1,319,992 A1 (EP'992), as evidenced by applicants' admissions in the instant specification at page 21, lines 2-24, and in Tables 1 and 2, examples 1-11 and comparative examples 3 and 4 (applicants' admission I).

Claim 15 is rejected for the reasons discussed in the office action mailed on Sep. 7, 2006, paragraph 12, which are incorporated herein by reference.

Applicants' arguments filed on Nov. 30, 2006, have been fully considered but they are not persuasive.

Applicants assert that EP'992 is not prior art to the

subject matter recited in amended claim 15 because they have perfected their claim to foreign priority under 35 U.S.C. 119 for the subject matter recited in instant claim 15. Applicants assert that subject matter recited in instant claim 15 has antecedent basis in the certified English-language translation of the priority document Japanese Patent Application 2002-205196, filed on Feb. 27, 2006.

However, the originally filed specification does not provide an adequate written description of the subject matter recited in amended claim 15 for the reasons discussed in paragraph 9 above. Therefore, there is no continuity in the originally filed specification for the subject matter recited in instant claim 15. Thus, the subject matter recited in instant claim 15 cannot be given the benefit of foreign priority. Accordingly, applicants have not perfected their claim to foreign priority for the subject matter recited in instant claim 15. EP'992 remains as prior art with respect to the subject matter recited in instant claim 15.

12. Claims 1, 3, and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 4,983,369 (Barder), as evidenced by applicants' admissions at page 39, lines 20-23, page 40, lines 9-14, and

page 41, lines 3-4, of the instant specification (applicants' admission II).

Barder teaches microspheres of silicon oxide having an average particle diameter 0.3 μm ± 0.1 μm, i.e., 300 nm ± 100 nm. Example VIII at cols. 8-9. The microspheres meet the compositional limitations recited in instant claim 1.

Barder does not expressly state that the average particle diameter is a number average particle diameter. Nor does Barder state that the microspheres of silicon oxide have circularities SF1 and SF2 as recited in the instant claims. However, the numerical value of the Barder average particle size of 300 nm is within the range of numerical values of the number average particle diameter of 30 nm to 300 nm recited in instant claim 1. The numerical value of the Barder standard deviation of the average particle diameter of 100 nm also is within the numerical value of standard deviation σ ranges recited in instant claims 1 and 3. According to Barder, the particle size is determined by examining a scanning electron microscope (SEM) photographic of the particles. Col. 7, lines 4-7. The instant specification at page 39, lines 20-23, and page 40, lines 9-14, discloses that the number average particle diameter can be determined by using a scanning electron microscope. Thus, it is reasonable to conclude that the Barder average particle diameter and standard

deviation are based on number average as recited in the instant claims. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980). In addition, as discussed supra, the Barder silicon oxide particles are described as being "microspheres." See, for example, Fig. 2. According to the instant specification at page 41, lines 3-4, "[i]f a particle is exactly spherical, the particle has both SF1 and SF2 of 100." Accordingly, because the Barder silicon oxide particles are described as "microspheres," it is reasonable to presume that they have a SF1 value and a SF2 value as recited in the instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

Applicants' arguments filed on Nov. 30, 2006, have been fully considered but they are not persuasive.

Applicants assert that the oxide particles recited in the instant claims are characterized by its "broad particle size distribution, which is evident from the value of the standard deviation σ of the particle size distribution." Applicants assert that "[i]t is possible to process the images of Figures 1 and 2 of Barder to calculate the value of σ of Barder. In that case, the value of σ of Barder will clearly fall out of the range defined by the subject application."

Applicants' assertions are not persuasive. Contrary to applicants' assertion, Figure 1 of Barder does not represent the invention of Barder. See Barder, col. 3, lines 29-30. Barder teaches that its silica particles are obtained by a two-phase reaction, not a single-phase reaction as shown in Figure 1. Col. 2, lines 33-36. Furthermore, applicants' assertion regarding the possible calculation of "σ" from the images in Figure 2 of Barder is mere attorney argument. Applicants have not provided any objective evidence to support their assertion. As discussed in the rejection above, the Barder microspheres of silicon oxide in example VIII have an average particle size of 300 nm $\pm$ 100 nm. The Barder standard deviation of 100 nm is within the numerical value of the standard deviation σ ranges recited in instant claims 1 and 3. Applicants have not met their burden by providing any objection evidence to show that the Barder average particle diameter and standard deviation are not based on number average as recited in the instant claims. Nor have applicants met their burden by providing any objection evidence to show that the Barder microspheres of silicon oxide do not have a SF1 value and a SF2 value as recited in the instant claims. Accordingly, the rejection of claims 1, 3, and 4 over Barder stand.

13. Claims 1-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,248,495 B1 (Inokuchi), as evidenced by applicants' admissions in the instant specification at page 41, lines 3-4, and in Tables 1 and 2, examples 1-13 and comparative examples 1-4 (applicants' admissions III).

Inokuchi discloses hydrophobic spherical silicon oxide particles having a particle size distribution of 20 to 250 nm. The hydrophobic spherical silicon oxide particles are obtained by surface treating spherical silicon oxide particles with hexamethyldisilazane, which introduces a $R^1_3SiO_{1/2}$ unit on the surface of the silicon oxide particles. Col. 3, lines 35-53; and example 1 at cols. 4-5 and in Tables 1 and 2. The hydrophobic spherical silicon particles comprise 40 ppb or less of Ti. The Inokuchi hydrophobic spherical silicon oxide particles meet the compositional limitations recited in instant claims 1 and 5-10.

Inokuchi does not disclose that its spherical hydrophobic silicon oxide particles have circularities SF1 and SF2 as recited in the instant claims. Nor does Inokuchi disclose that its spherical hydrophobic silicon oxide particles have a number average particle size and standard deviation σ of a particle size distribution as recited in the instant claims. However, as

discussed above, the Inokuchi hydrophobic spherical silicon oxide particles meet the compositional limitations recited in the instant claims. Inokuchi describes the hydrophobic silicon oxide particles as "spherical." The particles have a particle size distribution of 20 to 250 nm.

According to the instant specification at page 41, lines 3-4, "[i]f a particle is exactly spherical, the particle has both SF1 and SF2 of 100." The instant specification also discloses that the toners comprising oxide particles having the SF1 and SF2 values, the number average particle size, and the particle size distribution recited in the instant claims provide images with very little or no "hollow defects." See Table 1, examples 1-13. Table 1 shows that when the oxide particles have SF1 and SF2 values that are not within the ranges recited in the instant claims, the toner provides images having "hollow defects." Comparative example 4 in Tables 1 and 2, where the SF1 is 131 and the SF2 is 127. Table 1 also shows that when the oxide particles do not have the number average particle size or a particle size distribution as recited in the instant claims, the toner provides images having "hollow defects." The "hollow defects" are formed from untransferred toner. Comparative examples 1 and 2 in Tables 1 and 2, where the number average particle size is 310 nm and 28 nm, respectively; and example 3

in Tables 1 and 2, where σ is about 0.09R. According to Inokuchi, when its hydrophobic silica particles are used as an external additive in toners, the toners have improved fluidity and cleaning characteristics, as well as stable and uniform charging characteristics. Col. 1, lines 45-56. The toners provide images with no white spots, i.e., no adhesion of the toner to the photoconductor. In other words, there is no untransferred toner. Col. 6, lines 59-67, and Table 2, example 1. These properties appear to be the same properties sought by applicants. Accordingly, because the Inokuchi hydrophobic silicon oxide particles in the example 1 meet the compositional limitations recited in the instant claims and are described as "spherical," and because when said hydrophobic spherical silicon oxide particles are used as the external additive in toners, the toners appear to have the properties sought by applicants, it reasonable to presume that the Inokuchi spherical hydrophobic silicon oxide particles have the SF1 value, the SF2 value, the number average particle size, and the particle size distribution as recited in the instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inokuchi, as evidenced by applicants' admissions III, combined with US 2001/0051270 A1 (Yamashita).

Inokuchi, as evidenced by applicants' admission III, discloses hydrophobic spherical silicon oxide particles as described in paragraph 13 above, which is incorporated herein by reference. As discussed in paragraph 13 above, Inokuchi discloses that the hydrophobic spherical silicon oxide particles are obtained by surface treating spherical silicon oxide particles with hexamethyldisilazane, which introduces a $R^1_3SiO_{1/2}$ unit on the surface of the silicon oxide particles.

Yamashita teaches that hydrophobic inorganic particles, such as hydrophobic silica particles, can be further treated with a silicone oil, such that the oil-treated inorganic particles have a free silicone degree, i.e., liberation degree of silicone oil of 10 to 70%. Paragraphs 0025-0027 and 0105-0110; and paragraph 0102, which discloses that the inorganic particles can be treated with a hydrophobizing agent before the silicone oil treatment. The free silicone degree of 10 to 70% meets the liberation degree of silicone oil range of 10 to 95% recited in instant claim 11. According to Yamashita, when said oil-treated silica particles are used as an external additive in a toner, the toner provides good quality images with

"good fixing property without causing image omissions even when used for paper-drive image forming method." Paragraph 0022. According to Yamashita, "[w]hen the free silicone degree is too small, the effect (i.e., to prevent image omissions) can hardly be exerted. To the contrary, when the free silicone degree is too large, adverse effects such as deterioration of resolution and image density of the resultant images are exerted." Paragraphs 0046 and 0050. Thus, the reference recognizes that the free silicone degree is a result-effective variable. The variation of a result-effective variable is presumably within the skill of the ordinary worker in the art.

It would have been obvious for a person having ordinary skill in the art to further treat the Inokuchi hydrophobic spherical silicon oxide particles with silicone oil as taught by Yamashita, such that the resultant silicone oil treated hydrophobic spherical silicon oxide particles have a free silicone degree of 10 to 70%. That person would have had a reasonable expectation of successfully obtaining silicone oil treated hydrophobic spherical silicon oxide particles that when used as an external additive in a toner, the toner provides good quality images with "good fixing property without causing image omissions" as disclosed by Yamashita.

15. Claims 12-14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inokuchi, as evidenced by applicants' admissions III, combined with US 6,080,519 (Ishiyama).

Inokuchi, as evidenced by applicants' admission III, discloses hydrophobic spherical silicon oxide particles as described in paragraph 13 above, which is incorporated herein by reference.

Inokuchi further discloses a two-component developer comprising a carrier and a toner. The color toner comprises: (1) color toner particles; and (2) the hydrophobic spherical silicon oxide particles of example 1. Col. 5, lines 21-29; col. 6, lines 59-67. The hydrophobic spherical silicon oxide particles of example 1 are present in an amount of 1.0 part by weight based on 100 parts by weight of the toner, which meets the amount ranges recited in instant claims 13 and 14. The toner particles comprise a polyester binder resin, which meets the toner binder resin limitation recited in instant claim 17.

The Inokuchi toner particles have an average particle size of 7 μm. Inokuchi does not expressly describe the average particle size as a volume average particle size as recited in instant claims 12 and 18. However, the numerical value of the average particle size is within the range of numerical values of

the volume average particle size of 2 to 7 μm recited in instant claims 12 and 18.

Ishiyama teaches that when the volume average particle size of the toner is less than 2 μm, the charge property of the toner is insufficient and lowers the developing property (i.e., developing quality). If the volume average particle size is greater than 9 μm, the resolution of the image is degraded. Col. 7, lines 22-27. The range of 2 to 9 μm overlaps the range of 2 to 7 μm recited in instant claims 12 and 18. Thus, the toner art recognizes the volume average particle size as being a result-effective variable. The variation of a result-effective variable is presumably within the skill of the person having ordinary skill in the art.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Ishiyama, to adjust, through routine experimentation, the particle size of the toner particles disclosed by Inokuchi, such that the resultant toner particles have a volume average particle size within the scope of instant claims 12 and 18. That person would have had a reasonable expectation of successfully obtaining a toner that provides images with improved resolution.

16. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inokuchi, as evidenced by applicants' admissions III, combined with Ishiyama, as applied to claim 12 above, further combined with US 5,554,478 (Kuramoto).

Inokuchi, as evidenced by applicants' admission III, combined with the teachings in Ishiyama renders obvious a color toner as described in paragraph 15 above, which is incorporated herein by reference.

Inokuchi does not exemplify color toner particles comprising a polyol resin binder as recited in instant claim 16.

Kuramoto discloses a polyol binder resin that comprises a main chain portion containing an epoxy resin moiety and a polyoxyalkylene moiety. Col. 3, lines 52-56. The polyol binder resin is synthesized by reacting (1) an epoxy resin, (2) a dihydric phenol, and (3) either an alkylene oxide adduct of a dihydric phenol or a glycidyl ether thereof. See Synthesis Example 1 at col. 8. Said binder resin meets the polyol recited in instant claim 16. According to Kuramoto, color toners comprising said binder resin provide images with excellent color reproducibility and uniform glossiness. Col. 3, lines 32-35, and col. 19, lines 14-17. Said toners also have excellent environmental stability. Col. 3, lines 39-41.

It would have been obvious for a person having ordinary

skill in the art to use the Kuramoto polyol binder resin as the binder resin in the toner rendered obvious over the combined teachings of Inokuchi, as evidenced by applicants' admission III, and Ishiyama. That person would have had a reasonable expectation of successfully obtaining a color toner that has excellent environmental stability and that provides color images with excellent color reproducibility and uniform glossiness.

17. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inokuchi, as evidenced by applicants' admissions III, combined with Ishiyama, as applied to claim 12 above, further combined with US 5,705,303 (Ichimura).

Inokuchi, as evidenced by applicants' admission III, combined with the teachings in Ishiyama renders obvious a color toner as described in paragraph 15 above, which is incorporated herein by reference.

Inokuchi does not exemplify a toner comprising an additional external additive as recited in instant claim 15. However, Inokuchi teaches that other additives may be blended with the toner particles. col. 3, lines 63-64.

Ichimura teaches that particular crystalline titanium dioxide particles having a primary particle size of 18 nm can be

used as a toner external additive. See sample no. 10 in Table 1 at col. 8. According to Ichimura, when a toner comprises said crystalline titanium dioxide particles, the toner is "prevented from agglomerating" and "causes no scratches or filming on a photoreceptor." Col. 1, lines 56-61; example 10 in Table 1; and example 20 in Table 2. Ichimura further teaches that the particular crystalline titanium dioxide particles can be used in combination with other external toner additives, such as hydrophobic silica particles. Col. 6, line 66, to col. 7, line 3, and example 20 in Table 2. The Ichimura crystalline titanium dioxide particles having a primary size of 18 nm meets the external additive having a "small average diameter of primary particles" as recited in instant claim 15.

It would have been obvious for a person having ordinary skill in the art to externally add the particular Ichimura crystalline titanium dioxide particles to the toner rendered obvious over the combined teachings of Inokuchi, as evidenced by applicants' admission III, and Ishiyama. That person would have had a reasonable expectation of successfully obtaining a toner that is "prevented from agglomerating" and "causes no scratches or filming on a photoreceptor" as taught by Ichimura.

18. Applicants' arguments filed on Nov. 30, 2006, as applicable to the rejections in paragraphs 13-17 above have been fully considered but they are not persuasive.

Applicants consider that the examiner's assertion that "particles having the same composition must have the same properties lack foundation." Applicants assert that the "ordinary pulverized silica has various average particle sizes in its product lineup . . . [and] have different properties depending on the particle sizes . . ." As evidence, applicants provide copies of Nippon Aerosil Co, Ltd. web pages describing the various types of silica products.

Applicants' assertions are not persuasive. The examiner did not base her presumption that the Inokuchi spherical hydrophobic silicon oxide particles have the circularities SF1 and SF2 and the number average-based particle size and particle size distribution recited in the instant claims solely on the composition of the reference's particles. Rather, the examiner based her presumption on the facts that the hydrophobic silicon oxide particles in example 1 of Inokuchi not only meet the compositional limitations recited in the instant claims, but that the reference particles are described as being "spherical," and that when the reference particles are used as the external additive to toners, the toners appear to have the same

properties sought by applicants, namely providing images with very little or no "hollow defects." Thus, a prima facie case has been established that the Inokuchi particles appear to have the properties recited in the instant claims. Since the PTO cannot conduct tests, the burden is properly shifted to applicants to come forward with objective evidence to distinguish the claimed subject matter with the reference material.

Applicants' evidence, the copies of Nippon Aerosil Co, Ltd. web pages describing the various types of silica products, does not appear to provide a probative comparison to Inokuchi. There is no objective evidence in the present record to show that the commercially available silicon oxides associated with the tradename AEROSIL described on the Nippon Aerosil web pages are representative of the Inokuchi hydrophobic spherical silicon oxide particles. Thus, applicants have not their burden by providing any objective evidence to show that the Inokuchi hydrophobic spherical silicon oxide particles do not possess the properties recited in the instant claims. Accordingly, the rejections over Inokuchi set forth in paragraphs 13-17 above stand.

19. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
GROUP ~~1500~~ 1700

JLD
Feb. 8, 2007